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DIRECTORATE OF  
INTELLIGENCE

# Intelligence Memorandum

*North Vietnamese Sea Infiltration Of Military Supplies  
Into South Vietnam*

**Secret**

ER IM 71-156  
August 1971

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**CENTRAL INTELLIGENCE AGENCY**  
**Directorate of Intelligence**  
**August 1971**

**INTELLIGENCE MEMORANDUM**

**NORTH VIETNAMESE SEA INFILTRATION  
OF MILITARY SUPPLIES INTO SOUTH VIETNAM**

**Conclusions**

1. Since closure of the Sihanoukville supply corridor in January 1970, the North Vietnamese have expanded their logistical system in southern Laos and northeast Cambodia. However, we have not yet detected a capability on their part to move large quantities of supplies from the Cambodian provinces of Kompong Cham and Kratie (at the lower end of the system) farther south into South Vietnamese Military Region (MR) 4. This shortcoming may explain the increased efforts over the past 18 months on the part of the Communists to infiltrate supplies by sea. Over the past two years, there has been a total of 20 attempts detected - more than the total such attempts during the 1965-68 period - and MR 4 has been the destination of all the trawlers for which terminal destination could be estimated.

2. During 1970-71, the Communists managed to make two infiltrations by sea, the only known successes since 1964. Despite these two penetrations - which were not sufficient to meet enemy supply requirements in MR 4 - Market Time's record in blocking sea infiltration has been excellent.

3. With the replacement of its P-3 aircraft by land-based radar surveillance, however, the effectiveness of Market Time against trawler infiltration probably will decline and enemy infiltration attempts almost certainly will increase. Consequently seaborne infiltration may come to assume an important supply role, in the Delta and the regular resupply of Communist forces in MR 4.

*Note: This memorandum was prepared by the Office of Economic Research and coordinated within CIA.*

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4. During the past two years there has been a sharp increase in attempts by North Vietnam to infiltrate supplies by sea into South Vietnam. This memorandum reviews the history of this logistical practice and assesses its importance in relation to the supply requirements of the enemy's forces in South Vietnam. The memorandum also briefly examines the present and projected capability of Market Time, the Allied naval program designed to neutralize such infiltration attempts.

Background

5. In addition to the Ho Chi Minh Trail through Laos and the Sihanoukville corridor through Cambodia, North Vietnam has made use of seaborne infiltration of supplies by steel-hulled trawlers 1/ to provide support to its forces in South Vietnam. A Viet Cong captured in 1965 stated that between 1960 and 1964 North Vietnamese trawlers infiltrated material into South Vietnam on 20 occasions. Documents captured in the same year indicated that from January 1964 to January 1965 as many as two trawlers per month delivered cargo to Communist forces in MR 4. Although the magnitude of the enemy's sea infiltration efforts into other military regions prior to 1965 cannot be accurately determined, there is little doubt that the Communists were meeting a substantial amount of their countrywide external requirements by trawler infiltration. Communist use of this mode of resupply was interrupted in February 1965, however, when an enemy trawler was destroyed at Vung Ro Bay in GVN MR 2.

Market Time InterdictionMarch 1965 - August 1969

6. The month following the sinking of the North Vietnamese trawler in February 1965, the US Navy initiated its Market Time sea interdiction program along the coast of South Vietnam. In the subsequent three-year period through March 1968 the enemy was detected attempting to infiltrate supplies into South Vietnam by trawler on 12 different occasions, or an average of only once every three months. 2/ (No infiltration trawlers were

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1. Hereafter simply called trawlers.

2. Detected infiltration attempts by trawlers are shown in Appendix A.

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detected between March 1968 and August 1969.) During the period March 1965 - March 1968 eight trawlers were destroyed and four forced to abort their attempts at infiltration.

7. During the March 1965 - March 1968 period, trawlers were detected in attempts to infiltrate materiel into coastal areas of MRs 1, 2, and 4. These attempts probably were made to meet specific short-term local needs, however, rather than representing an attempt at routine resupply. Moreover, at least in 1968, sea infiltration attempts were crisis oriented. Trawler crews appeared to be reluctant to abort their missions; they tried to outmaneuver and outgun larger and faster Allied craft and were destroyed. Also illustrating the crisis-oriented character of the 1968 attempts, in February five attempts were made, four within 48 hours. These attempts occurred shortly after the heaviest fighting of the Tet offensive of 1968 when enemy stocks probably were at low levels. At no other time during the war were enemy sea infiltration attempts closely correlated with enemy offensive activity in South Vietnam. In this connection, however, a strong correlation between infiltration attempts and weather conditions was noted during the March 1965 - March 1968 period. Ten of the 12 trawlers detected were attempting to infiltrate during the northeast monsoon (November-April) - a time when Allied surveillance capabilities in northern and central South Vietnamese coastal waters are inhibited by poor visibility and heavy sea conditions.

August 1969 to the Present

8. Discovery of an enemy trawler in late August 1969 off the coast of MR 4 ended an 18-month standdown in detected Communist sea infiltration attempts. Since this resumption there has been a total of 20 attempts detected, of which 16 aborted, two were destroyed, and two successfully infiltrated supplies. Events in Cambodia clearly precipitated this rash of attempts. In May 1969, Sihanouk embargoed arms shipments to VC/NVA base areas; he subsequently lifted the ban in September 1969, but shipments were halted permanently on 10 January 1970. His subsequent ouster and the Allied incursions into Communist base areas in Cambodia during the spring of 1970 ended any enemy hope that the Sihanoukville corridor would be reopened and forced the Communists to look for alternative means of supplying combat forces in southern South Vietnam.

9. To take up this slack, the North Vietnamese expanded the Ho Chi Minh Trail through Laos into Cambodia during the 1970-71 dry season. Currently, it is capable of supporting enemy forces in northern and central South Vietnam as well as east-central Cambodia. At present, however, the enemy does not possess the logistical capability in place to move large

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quantities of materiel from base areas in the Cambodian provinces of Kompong Cham and Kratie - which receive supplies from Laos - into southern Cambodia and GVN MR 4. Thus he has had to place greater reliance on seaborne infiltration into this area. This shift in emphasis to MR 4 and the expansion of the sea infiltration effort is supported by ample evidence. Since August 1969, the enemy has averaged about one attempt per month, and MR 4 has been the destination of all the trawlers for which a terminal area could be estimated. (See the map for known current infiltration corridors.)

10. During the post-August 1969 period the North Vietnamese also altered their standard operating procedures: trawlers once detected and aware of Allied surveillance no longer attempted further penetration but aborted their missions. Four-fifths of the trawlers detected aborted their missions and returned safely to Communist waters. Two trawlers, destroyed during the period, 3/ probably were unaware of the surveillance and were sunk shortly after entering South Vietnamese territorial waters off the coast of MR 4. Unlike the 1965-68 period, the pattern of infiltration missions undertaken since August 1969 has had no apparent correlation with prevailing weather conditions.

11. The North Vietnamese are known to have successfully penetrated the Market Time barrier only twice since the program was initiated, both occurring since August 1969. In August 1970 an SL-4 trawler (see the photograph) evaded Allied surveillance and infiltrated munitions into An Xuyen Province of MR 4. 4/ In March 1971 an SL-6 trawler (see the photograph) was discovered in a canal at the tip of the Ca Mau Peninsula, also MR 4. The craft, estimated by the US Navy to have been in place less than four months, had apparently become mechanically disabled and when found was stripped and abandoned. It is possible, of course, that some trawlers successfully delivered cargo and returned to North Vietnam undetected by Market Time. A recent rallier from MR 4 has stated that a trawler successfully infiltrated supplies into Kien Hoa Province in early 1970. Another source stated that a trawler successfully delivered supplies to GVN MR 2 in 1971. These reports, however, have not been substantiated.

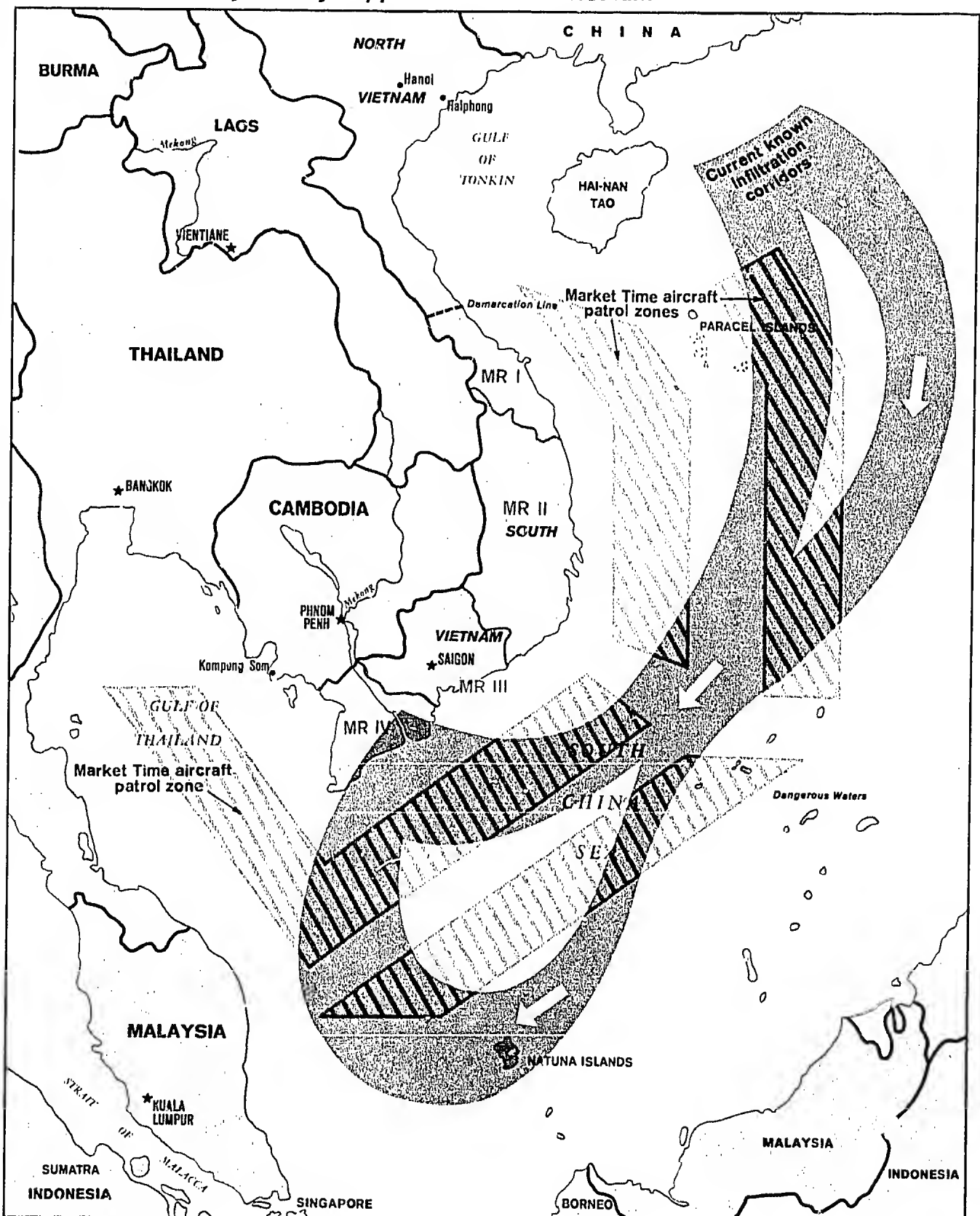
12. A new type of infiltration craft - the SL-8 - added to the North Vietnamese trawler inventory in mid-1970 brings a new dimension to the problem (see the photograph). The SL-8 has a capacity of about 400 tons

*3. A listing of cargo salvaged from a trawler destroyed in November 1970 appears in Appendix B.*

*4. Appendix C provides information on the types and characteristics of trawlers in the Communist inventory.*

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*Infiltration of Enemy Military Supplies into South Vietnam*

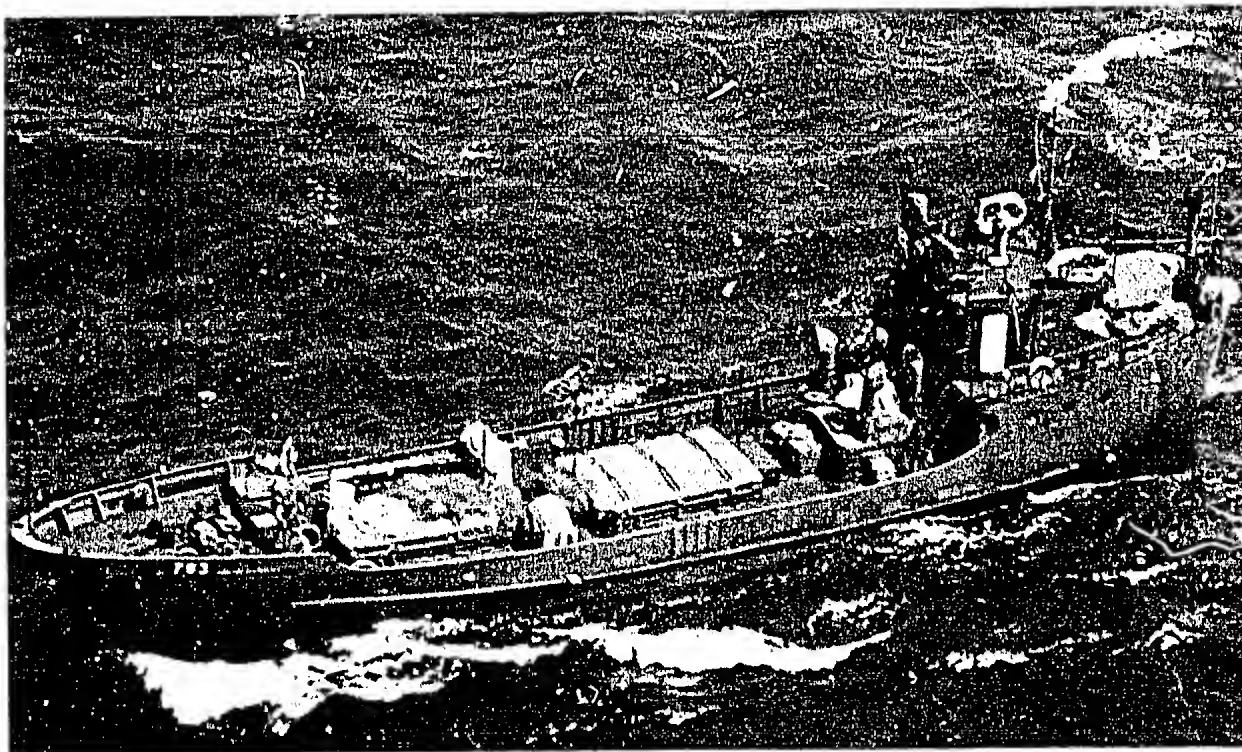
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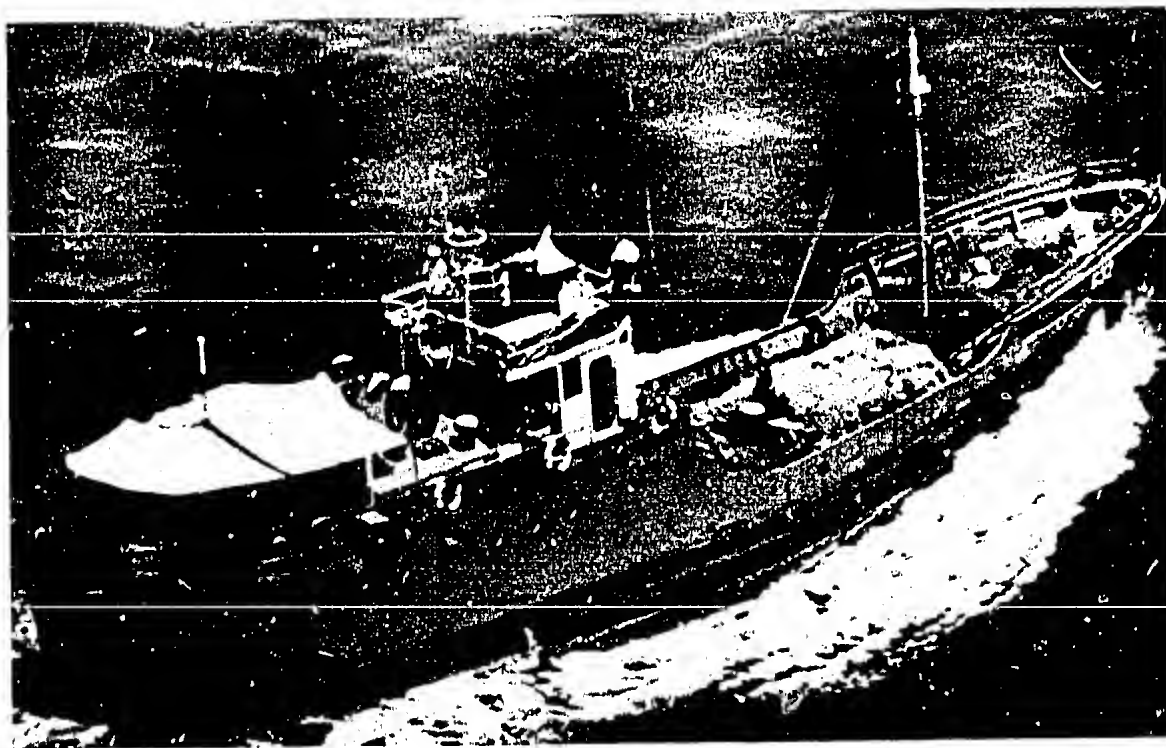
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SL-4



SL-6

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compared with capacities of about 100 tons for most of the other trawlers. The SL-8's seagoing capabilities are estimated to permit open ocean operations in any weather short of typhoon conditions. In fact, the SL-8 is considered capable of navigation through turbulent coastal waters to sheltered anchorages in sea conditions which would preclude the operation of the vast majority of Market Time surface craft. In the three months February-April 1971, three SL-8s were used on infiltration missions: two aborted and one was destroyed.

#### Market Time: Process and Performance

13. Market Time employs aircraft and surface ships in three barriers along the South Vietnam coast. The outermost barrier (50 to over 200 miles from the coast) is maintained by P-3 aircraft operating under US Navy control (see the photograph). These patrol craft conduct daily surveillance operations over the areas indicated in the map. The patterns flown roughly parallel large segments of inbound trawler tracks thus affording air crews maximum opportunities to detect infiltration trawlers (see the map). <sup>5/</sup> This air barrier has been extremely effective in detecting enemy trawlers and is the mainstay of the present Market Time operation: all but one of the trawlers detected by Market Time forces since August 1969 were initially sighted by P-3 crews.

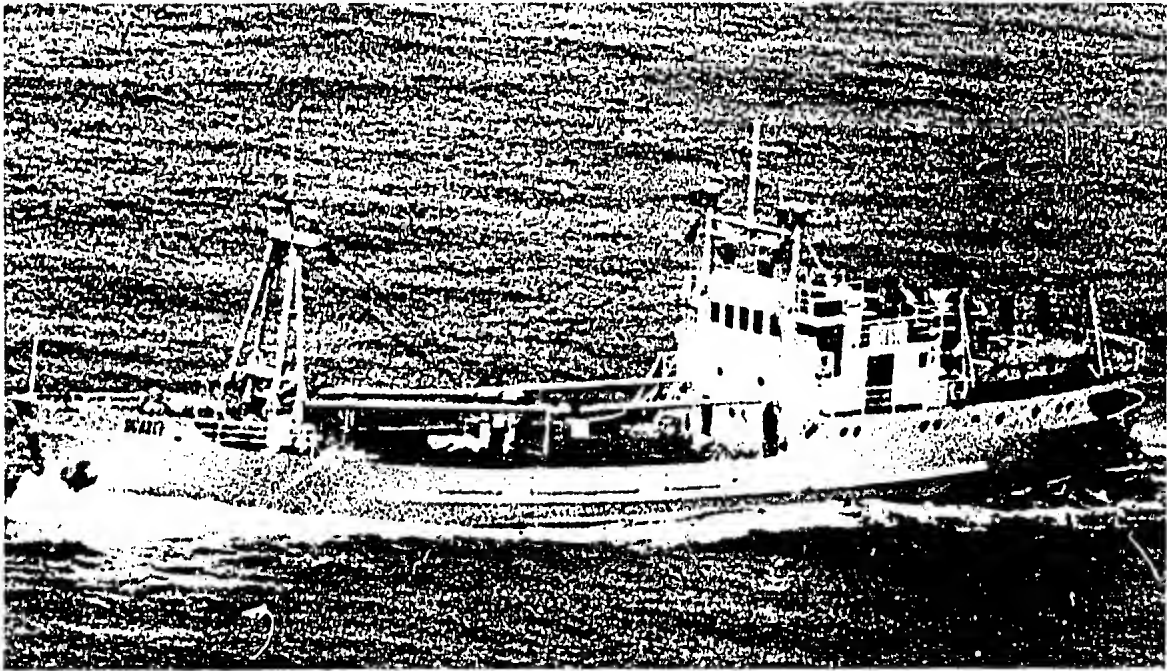
14. Although the air barrier is highly effective in locating enemy trawlers, it is defensive and does not necessarily result in the destruction of an infiltrator. During overt surveillance, continuous visual and radar contact with the trawler is attempted and the trawler is usually aware of the surveillance. Once aware of airborne surveillance, the infiltrator aborts his mission while in international waters and returns to Communist ports. Through this cautionary tactic the enemy is able to probe the barrier, maximizing opportunities for successful penetration without incurring major losses. To counter this tactic, Market Time forces have employed covert surveillance tactics in order to lure the trawler into South Vietnamese territorial waters where it can be destroyed or captured. Covert surveillance relies upon an initial sighting and identification by the aircraft, which then leaves the area and is relieved by another aircraft or by surface ship. The trawler may take evasive action in an attempt to ascertain whether or not it has been spotted. If convinced that no surveillance is being maintained, the trawler continues to fulfill its assigned mission. When the trawler enters South Vietnamese territorial waters it is brought under fire. Since mid-November 1970, of the five infiltration attempts detected by Market

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5. *Additional flight patterns have been designed and have been employed in high threat areas.*

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SL-8



P-3

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Time forces, covert surveillance was maintained in two instances, and in both cases the trawlers were destroyed.

15. The surface barriers have a significantly lower rate of effectiveness than the outer air barrier. The outer surface barrier is maintained by both US Navy and Vietnamese Navy ships including two destroyer escorts, two Coast Guard cutters, and several smaller ships. These craft conduct surface surveillance of detected infiltrators and engage trawlers once they have entered South Vietnamese territorial waters. The ships patrol areas approximately 12 miles off the coast of South Vietnam. The inner surface barrier is manned by numerous craft and is under complete control of the South Vietnamese Navy. They have little effectiveness against any infiltrating trawlers which may evade the air and outer surface barriers. Inner surface barrier ships are employed primarily against enemy coastal transshipment activity along the South Vietnamese coast.

16. A new coastal radar surveillance system is being constructed which is intended eventually to replace US aircraft on the outer air barrier. The system will comprise 16 sites and is scheduled to be operational by early 1972. This system almost certainly will not be nearly as effective a deterrent as the air barrier: reaction and surveillance time will decrease from a few days to only two or three hours.

#### Future Prospects for Sea Infiltration

17. Currently, North Vietnam has 23 trawlers in the six classes it has used for infiltration attempts which, barring Allied interdiction, could deliver more than 5,000 tons per month into South Vietnam -- a capacity sufficient to fulfill the Communist munitions requirements for all of South Vietnam for an entire year at current consumption rates. Because of Market Time, however, the enemy probably is not capable of meeting even current needs in MR 4 by trawler deliveries. Estimated enemy weapons and ammunition requirements in MR 4 during 1970 were between one and two tons per day. The total estimated capacity of the two trawlers known to have successfully evaded Market Time that year was about 200 tons -- roughly half the lower range of our estimate of the Communist annual external supply requirements for the region.

18. It seems likely that the enemy intends to develop the seaborne infiltration system for resupplying some of its forces in southern South Vietnam. A Viet Cong rallier reported that in July 1970 COSVN planned to establish alternate supply routes into the Delta area of South Vietnam. He stated that because COSVN had written off Sihanoukville as a supply source and because it believed MR 4 would be difficult to supply via the Ho Chi Minh Trail, it had reactivated Rear Services Group 962 which,

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before becoming inactive in December 1966 – when munitions began arriving at Sihanoukville – had been responsible for the receipt, distribution, and storage of munitions sent by sea from North Vietnam to MR 4. Also, documents recovered in Kien Hoa Province, in December 1970, revealed that personnel of the 126th Naval Sapper Regiment had been sent by the North Vietnamese Naval High Command to reconnoiter streams and canals in MR 4 as feasible off-loading points for cargoes delivered by sea. Some of these personnel are believed to have been aboard the trawler destroyed off the coast of Kien Hoa Province in November 1970.

19. Geographically, MR 4 with its many canals and rivers is well suited for seaborne infiltration. Waterways provide a natural cover which inhibit Allied detection and afford the Communists access to base areas throughout the region. Countless fishing junks and sampans further frustrate Allied efforts to eliminate enemy resupply traffic. Although the South Vietnamese have made considerable progress in recent years in securing areas of MR 4, in the key provinces of Kien Hoa and An Xuyen – considered likely terminal areas for seaborne infiltration attempts – the Communist infrastructure continues to control significant portions of the population.

20. Market Time's ability to thwart this threat will be significantly impaired when US naval forces are withdrawn and the air barrier is replaced by the Vietnamese-operated coastal radar surveillance system. Efforts currently are being made by South Vietnamese army and navy forces to secure the high threat coastal areas of MR 4. If successful, this would deny enemy access to trawler off-loading sites and offset to some extent the probable future deterioration in Market Time's performance.

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## APPENDIX A

Detected North Vietnamese Seaborne Infiltration Attempts  
by Steel-Hulled Trawler Since the Initiation of Market Time Operations

<u>Year</u>	<u>Number of Detections</u>	<u>Detection Date</u>	<u>Result</u>	<u>Destination by Military Region</u>
Mar-Dec 1965	1	31 Dec	Aborted	4
1966	3	10 May	Destroyed	4
		19 Jun	Destroyed	4
		23 Dec	Aborted	2
1967	3	1 Jan	Destroyed	4
		14 Mar	Destroyed	1
		11 Jul	Destroyed	1
1968	5	22 Feb	Aborted	2 (Est.)
		28 Feb	Destroyed	4
		29 Feb	Destroyed	1
		29 Feb	Aborted	2
		29 Feb	Destroyed	2
1969	3	24 Aug	Aborted	4
		16 Nov	Aborted	4
		23 Dec	Aborted	4
1970	12	11 Mar	Aborted	4
		21 Apr	Aborted	4
		19 May	Aborted	4 (Est.)
		29 May	Aborted	Unknown
		10 Jun	Aborted	4
		6 Jul	Aborted	4
		2 Aug	Aborted	Unknown
		28 Aug	Successful	4
		4 Sep	Aborted	4
		9 Oct	Aborted	Unknown
		28 Oct	Aborted	4
		19 Nov	Destroyed	4
1971	5	Late Dec 1970-Mar 1971 a/	Successful	4
		24 Feb	Aborted	4
		22 Mar	Aborted	4
		27 Mar	Aborted	4
		8 Apr	Destroyed	4

a. An SL-6 trawler was discovered disabled in southern An Xuyen Province in March 1971. The trawler probably infiltrated South Vietnam between late December 1970 and March 1971. This infiltration is thus counted in the 1971 total.

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APPENDIX B

Major Items Recovered from SL-3 Trawler  
Sunk Off Kien Hoa Province  
on 22 November 1970

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Weapons

195	AK-47 rifles
1	7.62-pistol
50	B-40 rocket launchers
48	B-41 rocket launchers
6	75-mm recoilless rifles

Ammunition

754	Cases and 31 boxes of 7.62 ammunition
424	B-40 rocket rounds
466	B-41 rocket rounds
95	107-mm rocket rounds
242	75-mm recoilless rifle rounds

Miscellaneous

134	boxes of TNT (30 pounds per box)
30	boxes of TNT (65 pounds per box)
24	boxes of batteries (four per box)
49	boxes of C-3 plastic explosives

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## APPENDIX C

North Vietnamese Inventory of Infiltration Trawlers

<u>Type</u>	<u>Inventory (Units)</u>	<u>Beam (Feet)</u>	<u>Length (Feet)</u>	<u>Speed (Knots)</u>	<u>Capacity (Metric Tons)</u>
SL-1 <u>a/</u>	33	20	125	12-15	200
SL-2	6	19	125	17-over 25	150-200
SL-3	2	18	88	14	100
SL-4	5	19	99	14	100
SL-5	1	22	110	14	100
SL-6 <u>b/</u>	Unknown	18	96	14	100
SL-7 <u>a/</u>	4	18	110	Over 25	150-200
SL-8	9	27	150	15	400
Wu Hu <u>a/</u>	7	18	81	Unknown	75

*a. The SL-1, SL-7, and the Wu Hu have not been observed attempting to infiltrate cargoes to South Vietnam, although they could be used for this purpose.*

*b. Photography of 18 June 1971 indicates that the Communists may have replaced the one previously identified SL-6 which was discovered abandoned in the Delta in March 1971 (see paragraph 11).*

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